APPENDIX K
SCOPING COMMENT SUMMARY

Process

Thirteen comments were received on the BWCAW NNIP Management Project in response to the scoping package that was available for public comment from April 22, 2011, to May 23, 2011. The comments were analyzed by the interdisciplinary team on June 20, 2011. The IDT sorted the comments into categories and drafted responses to the comments (see following pages). The Forest Supervisor reviewed the comments and approved issues and alternatives in a memo dated January 19, 2012. In this memo, the Forest Supervisor described one significant issue, the effects of herbicide on wilderness character. However, the definition of "significant issue" had changed prior to the drafting of the January 19 memo, but the Project Leader was unaware of this change and had erroneously recommended the effects of herbicide on wilderness character as a significant issue for Forest Supervisor consideration. This appendix corrects this error below and uses the current definition of "significant issue." In the January 19 memo, references about "significant issues" should be read as references to "issues that drive alternatives." Scoping comment analysis identified one issue that would drive an alternative and no significant issues.

1. **Issues:** Issues serve to highlight effects or unintended consequences that may occur from the proposed action and alternatives, giving opportunities during the analysis to reduce adverse effects and compare trade-offs for the decision maker and public to understand. An issue statement describes a specific action and the environmental effect(s) expected to result from that action. The Responsible Official determined which issues are to be analyzed in detail in the Draft Environmental Impact Statement (DEIS). Issues about effects that can be mitigated through further clarification of the proposed action, standards and guidelines, or mitigation measures are not significant issues. According to CEQ regulations, non-significant issues are only to be analyzed briefly. This summary lists non-significant issues that will be analyzed briefly in the DEIS. The Project Record contains further information on why the issues are not significant.
2. **Significant issues:** Significant issues result when the proposed action causes a significant environmental effect. A significant effect is based on the context and intensity of the effect. Based on her review of the comments, the scoping report, and her reviews of NNIP management with herbicides outside of the BWCAW, the Responsible Official does not expect the BWCAW NNIP Management Project to cause significant effects. Therefore, there are no significant issues.
3. **Alternatives, including mitigation measures:** Alternatives are other reasonable courses of action that address unresolved conflicts to the proposed action. The DEIS describes which alternative will be analyzed in detail or analyzed briefly and eliminated from further study.
4. **Non-issue comments and questions:** Non-issues are comments that do not debate the effects about the proposed activities. They may be questions, asking for more clarification of the proposed action.
5. **Comments noted:** Some comments are statements of opinion or preference about the proposed actions. These are considered by the interdisciplinary team and provide information on individual and group values and preferences relating to this project. However the scoping process is not a vote and comments are not used in that manner.

Issues Driving Alternatives

Herbicides trammel BWCAW wilderness character (Izaak Walton League)

As the MRDG notes, page 10, the use of herbicides in the BWCAW would be a significant trammeling of the Wilderness. Herbicide use would directly impact the wild and unmanipulated nature of the BWCAW that the 1964 Wilderness Act requires to be protected.

Response: We agree that herbicide use represents trammeling of the BWCAW wilderness character. The MRDG considers the trade-offs of herbicide use in wilderness versus the effects on wilderness character. The MRDG concludes that the short term trammeling caused by herbicide use would be countered by the long-term maintenance of the natural qualities of wilderness resulting from NNIP control. The effects of herbicide use on wilderness character are fully analyzed in the DEIS, and we include a no-herbicide alternative to evaluate the significant issue of the effects of the project to wilderness character.

Herbicides affect unconfined recreation aspect of wilderness character (Izaak Walton League)

The MRDG, page 5, states that the proposed action is necessary to preserve an "unconfined type of recreation." Again, this assertion is debateable. By trammeling the Wilderness with herbicides and reducing the area's unconfined wilderness character, it can be argued that such action would also *reduce* unconfined type of recreation.

Response: Herbicide use to manage non-native invasive plants can have positive and negative, short and long term effects on the unconfined recreation aspect of wilderness character. These effects are fully analyzed in Chapter 3 of the DEIS, and we include a no-herbicide alternative to evaluate the significant issue of the effects of the project to wilderness character.

Alternatives Considered But Not Analyzed in Detail

Biological controls (Harmon Seaver)

I was very disappointed to find that you are not considering using biological controls for the invasive plant problem in the BWCAW. There are very good and accepted bio-controls for most if not all of the plants needing eradication. The one for purple loosestrife is even the method of choice used by the Minnesota DNR.

Response: Effective biological controls exist for four or five of the 13 species targeted by this project: purple loosestrife, spotted knapweed, St. Johnswort, leafy spurge, and probably cypress spurge. Research is underway for most of the other NNIP to find effective biological control agents, but there have been problems with some species like Canada thistle because the biological control agents also attack native thistles. Biological controls are not a treatment method selected for further consideration for this project because they do not meet the purpose and need of this project. This is discussed more fully in Chapter 2 – Alternatives considered but not analyzed in detail.

Issues

Water quality, human health and safety, and wildlife (Izaak Walton League)

Furthermore, the use of herbicides in a water-based wilderness, where not only the human visitors drink from the lakes and streams, but the wildlife and other plants use the water resources as well, also causes great concern.

Response: We concur that herbicides can pose a risk to water quality, human health and safety, and wildlife. The DEIS fully discloses the effects of the proposed action on these resources in Chapter 3.

Native Plants (Izaak Walton League)

…[I]f no native plants are able to grow back on the herbicided locations, is that more natural than if some non-native plants continued to grow there?

Response: Native plants will be able to grow back on herbicide treatment sites. The herbicides proposed for use do not remain active in the soil for long periods of time. As is described in Chapter 3 of the DEIS, the herbicides proposed for use are selective against broadleaved species and will not affect grasses and sedges that occur at treatment sites. Native grasses and sedges would continue to grow at treatment sites, and native broadleaved species would be able to colonize treatment sites from surrounding areas by the following growing season at the latest. There will not be large gaps where plants are unable to grow.

Effects of activities adjacent to BWCAW on NNIP spread (MN DNR)

Although the scoping document proposes activities to eradicate or control existing NNIPs and respond to new infestations, there are no activities proposed to actively prevent the introduction of NNIP species. We would suggest the EIS address human activities in and adjacent to the BWCAW to reduce the continued introduction and spread of NNIPs. An analysis of areas adjacent to the BWCAW to determine major sources for NNIP introduction as part of a cumulative effects analysis would be very helpful.

Response: Ongoing prevention measures are described in DEIS Appendix H. The Superior National Forest has a fairly good inventory of NNIP outside of the BWCAW that we actively manage with herbicides to help reduce spread of NNIP from areas adjacent to the BWCAW into the wilderness. Human activities adjacent to the BWCAW are considered in the DEIS in the Chapter 3 analysis of the effects of the project on non-native invasive plants.

Non Issue Comments And Questions

Tipping Point (Izaak Walton League)

The Scoping Report, page 3, states that "We are approaching 'tipping point'…" with regard to non-native invasive plants in the BWCAW. Upon what studies or information is this statement based? Is the BWCAW closer to this tipping point now even though we no longer have dozens of resorts flying in hundreds of people (and non-native plant seeds) annually into the BWCAW in the late 1940's? Is this assertion based on any trend analysis or is it based mostly on the fact that we have better and more detailed information now on the NNIP in the BWCAW? When will the tipping point occur if this proposed plan does not occur?

Response: The tipping point statement is based on professional judgment that takes into account trend information, inventory data, and published strategies for managing non-native invasive plants. There is a large body of literature on NNIP management that describes strategies for managing invasives; examples include *Biology and Management of Noxious Rangeland Weeds* (Sheley and Petroff 1999) and the Forest Service National Strategy for managing invasives (USDA Forest Service 2004). Some common strategic elements are prevention, early detection, and rapid response. Without these elements, NNIP infestations become widespread and have irreversible impacts. Somewhere between the initial introduction of the invasive and when it becomes widespread is a "tipping point". This "tipping point" is hard to quantify, but the idea is that at some point an invasive plant becomes so widespread that the negative consequences outweigh the benefits of trying to manage the species.

Although there is not a lot of long term trend information for northeast Minnesota, here is one example. In her 1965 work, *A Flora of Northeastern Minnesota*, Olga Lakela wrote that for this part of the state the three invasive hawkweeds (*Hieracium pilosella* – creeping hawkweed, *H. floribundum* – meadow hawkweed, *H. aurantiacum* – orange hawkweed) were either "rare" or "spreading rapidly and becoming common". In 44 years they have become the most abundant invasive plants in northeast Minnesota. Hawkweeds are now along every roadside in this part of the state, and they are also the most abundant invasive plant in the BWCAW.

In 2004, the Superior National Forest started a non-native invasive plant inventory in the BWCAW to establish a baseline. So far, the evidence suggests invasives are spreading rapidly. For example, in some of the burned areas at the end of the Gunflint Trail we have seen rapid spread of Canada thistle. This inventory is important to determining that we are approaching the "tipping point."

With over 250,000 visitors to the BWCAW annually, there is ongoing risk of continued introduction of NNIP, even without float planes flying into resorts as in the 1940's. It is hard to pinpoint an exact "tipping point," and we cannot put an exact acreage on when it will be reached. However, the professional experience of IDT members who have worked on other National Forests in the western United States where invasives are very widespread and management options are limited suggests that we have not reached that "tipping point" in the BWCAW.

Prevention (Izaak Walton League)

The Scoping Report, page 1, states that the Forest has been implementing an integrated pest management (IPM) program, including early detection and prevention. What exactly are these efforts? Does the Forest have regulations in place to prevent the influx of additional non-native invasive plants? For example, are regulations in place to prevent visitors from bringing in hay and straw to the BWCAW for winter camping? At one time this was a common practice in the BWCAW, and a likely source of infestations at campsites.

Response: The integrated pest management program used by the Superior National Forest to manage non-native invasive plants is described more fully in Appendix H. This includes description of early detection and prevention measures. A few specific regulations are in place to prevent the spread of NNIP in the BWCAW, including the prohibition of using hay or straw for sled dog bedding, and stipulating the use of native plant materials for rehabilitation work if natural regeneration is not feasible. All of our other prevention measures for NNIP are voluntary

and are described in Appendix H.

Prevention (Northeast Minnesotans for Wilderness)

We call attention to two significant omissions in the project scoping description, … and Prevention of NNIS in the BWCAW. It is not that the current project should necessarily address these issues. It is rather that their omission should be noted so that the NNIP Project will not be taken as all inclusive. It would be helpful, to have some indication of how and when these issues will be addressed (and/or how they are being addressed currently.)

An "integrated" pest management project, as the NNIP Project claims to be, should address the issue of prevention, or discuss how prevention will be addressed. A brief inspection of the two site maps suggests to us that motorized transportation may well be a significant source of NNIP. Motorized lakes contain a substantial number of sites and other concentrations are found along routes we associate with illegal ATV and snowmobile travel in the BWCAW.

Response: Please see the response to the Izaak Walton League comment about prevention above. Motorized use can be a source of NNIP spread, as can non-motorized use. Probably more important than the type of use is the level of use. The more visitors that use a site, the more ground disturbance there is, and with this comes a higher likelihood of NNIP spread. NNIP tend to be most abundant on lakes nearer to busy entry points.

Prevention (Dyke Williams)

Mr. Williams is a cabin owner on Seagull Lake, and he sees a lot of other properties near him, and most of the weed spread he sees comes from machinery/vehicles/equipment. He feels like a power washer located at mid-Trail could take care of a lot of the problems and that we need to be more proactive. He suggests we should publish a draft ordinance to start this process (paraphrase of phone conversation).

Response: We agree that being more proactive to prevent introductions of NNIP is one important component of invasive species management. The ongoing measures for preventing NNIP spread in the BWCAW are described in more detail in Appendix H. A power washer at mid-Trail is beyond the scope of this project. One group that could take up an effort like this is the Cook County Invasives Team. Please visit their website at http://www.co.cook.mn.us/index.php/invasives-species-team.

Natural plant communities (Izaak Walton League)

Will natural plant communities grow in places where herbicides have been used? Or will the use of various herbicides make these locations inhospitable to native species to ever grow there? If the latter is the case, the decision to use herbicides should be reconsidered.

Response: No decision on the use of herbicides in the BWCAW has been made. Natural plant communities will grow in places where herbicides have been used, if a natural plant community existed there in the first place. For example, spot application of herbicide to remove Canada thistle growing along a latrine trail or orange hawkweed growing on a rock outcrop away from a campsite would result in a natural community after control actions had been completed. However, sometimes NNIP grow on tent pads or around fire grates, and generally these areas get so much human use that they do not support a natural community in the first place. In this case,

herbicide application would probably not result in a natural community.

Duration of herbicide use (Izaak Walton League)

The Scoping Report indicates that this plan will be a 10-year effort. What is the likelihood that the non-native plants will be eliminated by the end of the 10-year effort? How long will herbicide use continue in the BWCAW if non-natives still persist in the BWCAW at the end of this time? Might herbicide use in the BWCAW become permanent? If the latter is the case, the decision to use herbicides should be reconsidered.

Response: This project has a definite, well-defined endpoint – ten years from project initiation. At that time the need for herbicide use to manage non-native invasive plants in the BWCAW would be re-evaluated, taking into account monitoring results from the ten years of project work. We cannot definitively say that we would or would not propose another project involving herbicide use to manage NNIP in the future. However, we do expect the need for herbicide use to drop over the ten years of this project, based on our experience managing NNIP with herbicides outside of the BWCAW.

After observing the effects of our herbicide treatments outside the BWCAW, we define success as eradicating small infestations (which is very possible), and reducing larger populations to 90% of their original size, to the point where very little annual treatment effort is needed. These kinds of outcomes are not possible with hand-pulling – it is rarely possible to eradicate even a small population of a rhizomatous species (species with creeping or spreading roots) with handpulling.

Total eradication would be possible for some species for which we have very few infestations, such as tatarian honeysuckle, and for small infestations of most species. For most species as a whole, total eradication is not a realistic expectation.

However, 60% (548 infestations) of all the known weed infestations in the BWCAW are 25 square feet or less, so we can realistically expect to eradicate these infestations. One hand-pulling treatment on these types of sites would at best: kill a few plants and keep the rest from going to seed for one season; disturb the soil; expose weed seeds to light and encourage further germination of weed seeds in the soil. In contrast, one herbicide treatment on these types of sites would at best kill nearly the whole population of the invasive, and would encourage other co-existing vegetation to reclaim the site.

Other non-native species (Izaak Walton League)

How did the Forest determine which plants to target? Are there other non-native plant species present in the BWCAW that are not targeted in the current efforts? What about lilac bushes at former resort sites?

Response: This project focuses on a group of 13 non-native invasive plant species. These species were identified through a risk evaluation process that considered their invasiveness and their potential impacts to ecosystem processes and native plant communities (available upon request). Five of the species are also on the Minnesota noxious weed list. Other non-native plant species are also present in the BWCAW, but they are not targeted by this project; for example, common plantain (*Plantago major*), dandelion (*Taraxacum officinale*), and mouse-ear chickweed (*Cerastium fontanum* ssp. *vulgare*) are fairly common at BWCAW campsites, but

they are not very invasive and not a big threat to native plant communities. Lilac is not one of the target species.

Non-plant NNIS (Northeast Minnesotans for Wilderness)

We call attention to two significant omissions in the project scoping description, non-plant NNIS, especially Aquatic Invasive Species (AIS)…It is not that the current project should necessarily address these issues. It is rather that their omission should be noted so that the NNIP Project will not be taken as all inclusive. It would be helpful, to have some indication of how and when these issues will be addressed (and/or how they are being addressed currently.)

Non-plant NNIS, especially AIS, strike us as at least equally harmful as plants in the water rich BWCAW environment. And water based NNIS appear more difficult to control once established. We note also the presence of earthworms in the BWCAW. A parallel effort to control these NNIS should be established as soon as possible.

Response: The omission of non-plant NNIS will be discussed in the DEIS. Although non-plant NNIS are beyond the scope of this project, we agree that other AIS and earthworms can have serious ecological consequences to the BWCAW. Currently these species are being addressed primarily by education and prevention measures because control measures are very challenging. For example for AIS, the Superior National Forest received money for a portable boat washing station to help educate boaters about AIS and to prevent the spread of AIS. The Forest Service works cooperatively with the MN DNR, MN Sea Grant, and other entities in the state to make boaters aware of AIS through the Stop Aquatic Hitchhikers campaign. We also have educational materials that we hand out to BWCAW visitors about AIS, and educational signs at BWCAW entry points reinforce AIS prevention messages. The Superior National Forest also conducts inventories for AIS like rusty crayfish and spiny waterflea.

For earthworms, forest staff have attended training to become more aware of this issue, and to learn about a rapid assessment protocol to more efficiently detect earthworms during other resource management work. We also have educational materials that we hand out to BWCAW visitors about earthworms, and educational signs at BWCAW entry points reinforce earthworm prevention messages.

Control measures for AIS and earthworms are not very practical for widespread implementation because they have a high degree of negative side effects and/or are labor intensive. To eradicate AIS from a water body, the whole lake has to be poisoned; there are currently no selective methods to remove these species. Controlling earthworms is also challenging – a mustard solution is poured onto the ground and the earthworms respond by crawling to the surface where they can be collected.

Sources of NNIP (Minnesota DNR)

We recommend evaluating the sources of NNIP species in the Environmental Impact Statement (EIS) Proposed Action, Alternatives and Analysis.

Response: Sources of NNIP are considered in the DEIS in the Chapter 3 analysis of the effects of the project on non-native invasive plants.

Monitoring (Minnesota DNR)
It would be beneficial to include a statement that reflects how the results and effectiveness will be monitored. A more in-depth description of how the results may or may not be used to adapt the proposed management activities during the ten-year project period would also be helpful.

Response: A monitoring plan is included in the DEIS in Appendix I.

Poison ivy (Brian Henry)
What about poison ivy in the BWCA? Can we target that to be killed too?

Response: Although poison ivy can produce an itchy rash, it is a native plant. The DEIS only targets non-native invasive plants.

Mailing list (Paul Friesema)
Please put me on your mailing list for this NEPA process.

Response: We will add you to our project mailing list.

Outreach for project (Jean Public)
You need to make broad outreach to comply with NEPA. That means not just talking to your local lumber yards.

Response: We are making broad outreach for this project. Our scoping report was sent to 415 individuals or groups on our mailing list, which included tribal contacts, BWCAW cooperators, outfitters and guides, local governments, local landowners, and environmental groups, among others. It was also published in the Federal Register and in the Duluth News Tribune.

Herbicide safety (Jean Public)
None of them have been adequately tested for their life killing processes.

Response: All herbicides proposed for use in this project have gone through the EPA registration process mandated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This involves extensive testing to gain EPA approval.

Comments Noted

Project with defined, limited scope (Friends of the Boundary Waters Wilderness)
We find that the Forest Service has adequately answered these and other questions, and has proposed a project with a defined, limited scope with the real promise of improving the natural conditions of the BWCAW.

- The focus of this project is clear: to "eradicate or control existing non-native invasive plant (NNIP) populations and respond rapidly to new infestations…"
- There is an identified problem with a failure to act: the spread of invasive plant species that could threaten susceptible habitats…
- There is a clear, limited scope to the project: treatment of 13 acres, with the possibility of treating no more than 20 acres, over a 10 year time-frame

- The methods proposed are thoroughly described: application of herbicide by hand pump or sponge, combined with manual removal
- The environmental and health risks from the proposed herbicide types and amounts are low.
- We believe given the careful framing and limits of the proposed project, there will likely be a high level of public support for this effort.

Response: Thank you – comment noted.

Herbicides are effective tool (Joe Kirkeby)

Spray away. When properly used, herbicides can be very effective.

Response: Comment noted.

Supports spot application of herbicide (Dan Nelson)

While I have not studied the proposal in detail and I am generally opposed to herbicide use, especially in a wilderness, I can support this use in light of the consequences of no-action being taken. Given the relatively small size of the treatment areas that is. I do not favor the use of herbicides broadcast over large acreages so as long as it is specific spot usage it is okay.

Response: Comment noted

Supports invasive plant management in BWCAW (Mark Paschke)

I fully support plans to aggressively manage invasive plant species within the BWCA wilderness including the use of herbicides. It is critical to manage these species very aggressively at a very early stage. You have a very limited window of opportunity with these species. If aggressive actions are not taken now, there is the possibility of much larger and uncontrollable outbreaks. These exotic species have the potential to change the ecology, and hence the character, of the BWCA.

Response: Comment noted.

Oppose toxic chemicals (Jean Public)

I oppose all toxic chemical use and consider roundup and so many other weed, bug killers to be life killers.

Response: Comment noted.

Supports invasive plant management in BWCAW (Bruce Mellor)

He supports the proposed action 100%. He has hiked the Kek Trail in the past and is astounded by the weed expansion. He doesn't like chemicals but how else can you get rid of NNIS.

Response: Comment noted.